



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,390	10/21/2003	Mark Duron	SBL01534	2375
22917	7590	09/15/2010		
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196				
EXAMINER				
JOSEPH, JAISON				
ART UNIT		PAPER NUMBER		
2611				
NOTIFICATION DATE		DELIVERY MODE		
09/15/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

Office Action Summary

Application No.

10/690,390

Applicant(s)

DURON ET AL.

Examiner

JAISON JOSEPH

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-19 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-9 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Arguments

Applicant's arguments with respect to claims 1 – 19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helms et al (US Patent 6,236,315) in view of Levy et al (US Patent 4,335,214).

Regarding claim 1, Helms et al teach a system comprising a transmitter element creating an interrogation signal and transmitting the interrogation signal (see figure 2, element 201, 202, 203, and 204) and a receiver element receiving and demodulating a reflection signal of the interrogation signal and canceling the echo signal in the reflection signal (see figure 2 and column 2, lines 27 – 45). Helms et al is silent on combining the reflection signal and a feedback signal to cancel at least a portion of radio frequency signals in the reflection. However in analogous art Levy et al teach canceling echo signal in a received signal by combining the reflection signal and a feedback signal to cancel at least a portion of radio frequency signals in the reflection signal (see figure 3, component 30, Levy et al teach canceling the echo in a received (reflected) signal (output signal of element 45) by combining the received signal and

feedback signal (the output of element 33)), wherein the reflection signal comprises an error component comprising interrogation signal energy reflected from objects in an environment other than a radio frequency identification tag (inherent an echo is a signal that interrogation signal energy reflected from objects in an environment other than a radio transmitter intent to receive), wherein the feedback signal comprising only the error component at the carrier frequency and not side band energy offset from the carrier, and wherein the feedback signal is at different frequencies than a data signal of interest. (there is no criticality in this limitation, echo in the signal of interest depend on the system condition. Further paragraph 0021 of present specification discloses that the echo signal in the desired signal can be any frequency. Therefore it matter of design choice to have the feedback signal comprises the at least a portion of radio frequency echo signals at lower frequencies than a data signal of interest). Therefore it would be obvious to an ordinary skilled in the art at the time the invention was made to use Levy's echo canceller in Helms system. The suggestion or motivation to do so is no synchronization between the transmitter and receiver of the terminal in which it is incorporated and which lends itself to less complex digital implementation (see column 3, lines 10 –15).

Regarding claim 2, which inherits the limitations of claim 1, Levy et al further teach feedback signal is derived by isolating an error component of the reflection signal (see figure 3 element 30).

Regarding claim 3, which inherits the limitations of claim 2, Levy et al further teach the error component of the reflection signal is isolated in one of an in phase signal and a quadrature signal (see inputs to element 32).

Regarding claim 6, which inherits the limitations of claim 1, Helms et al further teach wherein the reflection signal is reflected by the radio frequency identification tag and other objects in the environment other than the radio frequency identification tag. (see abstract).

Regarding claim 7, which inherits the limitations of claim 1, Helms et al further teach wherein the feedback signal is derived through one of analog processing and digital processing (see column 1, lines 33 – 65).

Regarding claim 8, the claimed method including the features corresponding to subject matter mentioned in the rejection of claim 2 is applicable hereto.

Regarding claim 9, which inherits the limitations of claim 8, the claimed method including the features corresponding to subject matter mentioned in the rejection of claim 3 is applicable hereto.

Regarding claim 20, which inherits the limitations of claim 1, Helms further teach a single antenna connected to the transmitter element and the receiver element (see figure 3a).

Allowable Subject Matter

Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10 – 19 are allowable over prior art of record.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAISON JOSEPH whose telephone number is (571)272-6041. The examiner can normally be reached on M-F 9:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. J./
Examiner, Art Unit 2611

/CHIEH M FAN/
Supervisory Patent Examiner, Art Unit 2611